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CONSERVATIVE MANAGEMENT OF MORBIDLY ADHERENT PLACENTA: REPORT OF TWO CASES

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ABSTRACT The frequency of adherent placenta is increasing due to growing number of caesarean deliveries. The optimal management of this condition remains unclear, resulting in complications in the peripartum period such as severe haemorrhage, a possible need for caesarean hysterectomy, and even severe injuries to pelvic organs. We report two cases of conservative management of adherent retained placenta following normal vaginal delivery. Both were managed conservatively and followed up with 2-4 weekly USG. There was complete resorption of placenta by 3-4 months postpartum. No complications developed during the conservative management.

KEYWORDS : .

INTRODUCTION:

Placenta accreta is one of the most feared complications in obstetrics in which entire or focal placenta is abnormally adherent to the myometrium. Morbidly adherent placenta is frequently associated with severe maternal morbidity. Plaenta accreta is no longer a rare disease in a tertiary center. The incidence has increased from 1 in 2,510 (in 1994) to 1 in 533 deliveries (in 2002) [3]. An increased incidence over the recent years may be secondary to the increased caesarean section rates. The most severe form is placenta percreta, in which placenta penetrates through the full thickness of the myometrium, through the serosa, and may invade adjacent pelvic organs such as the bladder. The incidence reported in literature varies but averages 1:1000. The aetiology of placenta accreta has been thought to be due to the absence of the spongiosus layer of the decidua and the histology correspondingly shows trophoblast invasion into the myometrium without intervening decidua [1]. This disruption is often related to previous uterine scars, including caesarean sections and prior uterine curettage. Other risk factors associated with placenta accreta are multiparity (>6 pregnancies); placenta previa; prior intrauterine infections; elevated maternal serum alpha-fetoprotein; and maternal age over 35 years. Histologically, placenta accreta is identified by trophoblastic invasion of the myometrium in the absence of intervening decidua. The spectrum includes invasion of the superficial myometrium (accreta), invasion into deeper myometrial layers (increta), and invasion through the serosa and/or adjacent pelvic organs (percreta) [2].

Ideally, the diagnosis might be evaluated antenatally in high-risk pregnancies and suspected using ultrasound. This could allow for predelivery planning to reduce maternal morbidity and mortality. Unfortunately, most cases are identified only at the time of delivery when forcible attempts at manual removal of the placenta are unsuccessful. Severe postpartum hemorrhage may result and may lead to complications such as massive transfusion of blood products; DIC; acute renal failure; infectious morbidities; ARDS; loss of fertility. Mortality is as high as 7% [2].

A high index of suspicion is required for diagnosis, and ultra sonographic (USG) features suggestive of accreta must be sought in cases with risk factors. Magnetic resonance imaging (MRI) is currently being studied as an imaging modality to better define the topography and area of placental invasion to aid planning of surgery [1,2,3,4,5]. Imaging modalities during antenatal evaluation may detect the presence of morbidly adherent placentae. Comparisons between ultrasound and Magnetic resonance imaging (MRI) have shown a sensitivity and specificity for ultrasound 77% and 96% and for MRI 88% and 100% respectively, highlighting the complementary role of the two imaging modalities[3]. There has been a paradigm shift in terms of treatment, from the historical caesarean hysterectomy to more conservative methods of management involving uterine conservation and leaving the placenta in situ with adjuvant treatment of methotrexate in some cases, or simply awaiting spontaneous resorption of the placenta. The conservative management is facilitated by development of methods of controlling blood loss during surgery, such as embolisation, ligation or balloon occlusion of the arterial supplies, as well as the enhanced availability and safety of blood transfusions and good modern intensive care support [1,2].

CASE REPORTS:

CASE 1

A 23 years old multiparous woman (para 2 living 2) admitted on 1st postnatal day as retained placenta and failed manual removal. Antenatal period was apparently uncomplicated. At admission her pulse was 120/min, B.P. 100/60mmHg. Uterus was well retracted and there was no excessive bleeding per vaginum. Her haemoglobin was 6gm%. Liver and renal function tests were within normal limits. Transabdominal ultrasound showed uterine volume of 500cc, retained placenta 250cc which invades myometrium with poor differentiatiom and thinning of myometrium and normal parametrium, suggestive of placebta increta. She was started on broad spectrum antibiotics (combination of meropenem 12 hourly and metronidazole 500mg 8 hourly) for 10 days and haemoglobin, leucocyte count, temperature was monitored. She remained afebrile throughout. Four units of packed cells was transfused during her hospital stay. Haemoglobin improved to 10.2gm%. She received inj. Methotrexate on day 6 and day 8 (2 doses). And one dose of inj. Folinic acid. She was discharged after 10th day. On discharge she was advised to take tablet cefixime 200mg for 5 days and multivitamins, iron and calcium for 1 month. Patient was told to followup in every 2 weeks. After 1 month her transabdominal ultrasonograpy showed uterine volume of 280cc and retained product of conception of 5.1x5.1x5.4cm= 83cc. After 1 week her ultrasonography showed postpartum bulky uterus with retained product of conception of 6x5.5x6.6cm= 115cc. 1 week after her last visit, her ultrasonography showed bulky uterus with retained product of conception of 5x4.5x6.5cm= 80cc. ultrasonography reports on following visits showed reduction in volume of retained product. Last report after 3 months of discharge showed uterine volume of 80cc, endometrial thickness 15mm. No significant abnormality seen. She resumed her normal menstrual cycles after that.

CASE 2

A 27 years old multiparous woman (para 2 living 2) was referred to our hospital on 1st postnatal day from a PHC with retained placenta. She dlivered a full term, healthy baby at the PHC vaginally. At admission she was haemodynamically stable but clinically she was pale. Uterus was 24 weeks size and retracted. On per vaginal examination, cervix was 4-5cm dilated and placenta was felt through cervical canal. There was bleeding with passage of small clots per vaginum. Ultrasonog raphy on the day of admission showed placenta increta on fundus and left lateral wall. 2 units of packed cells. She was started on

combinations of antibiotics (inj. Piperacillin tazobactum 4.5gm 8 hourly and inj. Metronidazole 500mg 8 hourly) for 9 days. After 1 week of admission her ultrasonography report showed post partum uterus with retained product of conception of 423cc. After transfusion, her haemoglobin was 10.1gm%, platelet count 1.53 lakhs, total leucocyte count 10500. She was afebrile throughout her hospital stay. She was discharged on 10th day on tab. Cefixime 200mg BD and tab. Metronidazole 400mg TDS for 5 days, iron, calcium and multivitamins for 1 month. On her next visit after 2 weeks of discharge her ultrasonography report showed post partum bulky uterus, uterine volume 9.6x13.2x6.4cm= 428cc and retained placenta (placenta increta) in the endometrial cavity infiltrating the fundus and posterior wall of uterus of 7.7x7.2x5.2cm= 162cc. After 19 days ultrasonography was repeated which showed bulky uterus of 300cc with placenta increta. Next two ultrasonography reports showed reduction in size and volume of uterus. Last ultrasonography done after 3 months of discharge showed bulky uterus which measured 8.3x3.5x4.0cm with retained product of conception, size of which was significantly reduced as compared to the previous USG. She was given tab. Misoprostol 100 microgram once daily for 3 days.

ULTRASONOGRAPHY REPORTS OF THE ABOVE CASES :

	USG 1	USG 2	USG 3	USG 4	USG 5	USG 6	USG 7
CASE 1	Uterine volume 500cc Retained placenta 250cc	Uterine volume 13.4 x 5.9 x 6.6cm= 280cc Retained placenta 170cc	Bulky uterus Retained placenta 115cc	Bulky uterus Retained placenta 80cc	Bulky uterus Retained placenta 56cc	Uterine volume 132cc Retained placenta 25cc	Normal study with uterine volume 80cc
CASE 2	Post partum uterus Retained placenta 423cc	Bulky uterus 9.6 x 13.2 x 6.4cm= 428cc Retained placenta 7.7 x 7.2 x 5.2cm= 162cc	Bulky uterus 13.4 x 6.5 x 6.9cm= 300cc with echogenic foci in myometri-um with vascularity	Bulky uterus 12.3 x 5.7 x 7.4cm with small echogenic foci in myometri-um with minimal vascularity	Bulky uterus 8.3 x 3.5 x 4cm with retained product of concept-ion. Volume signific-antly reduced	Uterus normal in size 8.3 x 2.6 x 4.7cm Endome-trial thickness 6.4mm	

DISCUSSION:

The incidence of placenta accreta approximates 1 in 1000 deliveries and has been increasing largely due to the global increase in caesarean deliveries. Patients at risk for abnormal placentation should be assessed antenally by ultrasonography, with or without adjunct magnetic resonance imaging if indicated. The women at the highest risk are those with placenta previa in the current pregnancy and a history of prior caesarean delivery [2].

A conservative treatment of placenta accreta was first described in English literature in 1948. Recently, this approach has been frequently attempted in Europe and the Unites States, because conservative management is superior to the other two strategies (Caesarian hysterectomy and Uterine preservation and placenta extirpation) in avoiding severe peripartum hemorrhage and adjacent organ damage as well as preserving fertility. The key prerequisites to success are meticulous advance preparations with appropriate resources and facilities. It is absolutely imperative that the peripartum bleeding is under control and the patient is in a hemodynamically stable condition [4,6]. women with placenta accreta should be properly counseled that conservative management has potential risks for unpredictable secondary postpartum hemorrhage and infection that require delayed hysterectomy, and that close, follow-up monitoring is necessary [4].

In this study, both the cases were managed conservatively and had spontaneous resorption of placental tissue. Another study Manoj Kumar Tangri et al showed complete resorption of placenta after two doses of methotrexate like that of case 1 [3].

The most important complication of invasive placentation is massive hemorrhage. This is often a result of attempted manual placental separation from its poorly formed decidual bed, which opens up large-caliber spiral vessels and sinuses[3].

In 1986, the use of methotrexate, a folate antagonist, was first described in association with successful conservative treatment of placenta accreta[3]. It is supposed that methotrexate affects placental tissue by reducing its vascularity, leading to placental necrosis and thus rapid involution of the placenta[3,5,6,]. The placenta may be expelled after 5-13 days following intravenous methotrexate and 18 days following high-dose oral methotrexate. In cases where methotrexate was not administered, placental resorption was complete by 6 months. In bladder invasions the use of methotrexate may reduce the need for extensive bladder resection[3].

Over the past 20 years (1985 to 2006), around 48 case reports have described outcomes of 60 women who were treated conservatively for abnormally invasive placentation [7]. Twenty-six women were managed without any additional interventions. In 19/26, the placenta had been partially removed and therapy failed in 4 of these 26. Twenty-two women received adjuvant methotrexate. The entire placenta was left in situ in 19/22, in which therapy failed in 5. Twelve women were managed with arterial embolisation. The placenta was completely left in situ in 9/12 out of which therapy failed in 3. Overall, infection developed in 11/60, vaginal bleeding in 21/60, disseminated intravascular coagulopathy in 4/60 women. Spontaneous placental expulsion occurred in 16 women and subsequent pregnancies in 8 women.

CONCLUSION:

We report two cases of placenta accrete in multiparous women who were conservatively managed with antibiotics, placenta in situ. 1st case was given adjuvant methotrexate. There was complete resorption of placenta in 1st case and size of retained placenta reduced significantly in the 2nd case.

In conclusion we suggest that it may be better to treat the cases accrete conservatively, if the patients are haemodynamically stable and desirable for future fertility.

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